OCT 15 1992

Sandra L. Oberkfell
The Stolar Partnership
911 Washington Avenue
St. Louis, Missouri 63101

RE: Knapheide Mfg. Company

Dear Ms. Oberkfell:

I have reviewed the closure plan dated April 7, 1992, for the Waste Paint Filters and Overspray Paper Storage Unit and the Brule Incinerator Unit at the Knapheide facility. The enclosed comments concentrate only on Knapheide's proposed sampling activities found in Section 4.0, and should not be considered a complete review of the plan.

Modifying the closure plan to satisfy the following comments will not result in approval of the entire plan. However, the U.S. Environmental Protection Agency (EPA) will hold in abeyance the facility's responsibility for financial assurance until closure is completed, provided the sampling is carried out according to my comments and it is determined that no cleanup action is required after sampling and analysis is finished. Knapheide also must seek approval of the closure plan from the Missouri Department of Natural Resources (MDNR).

Please resubmit Section 4.0 of the revised closure plan prior to initiating any sampling activities set forth in the plan. If you have any questions or comments on this submittal, please contact me at (913) 551-7455.

Sincerely,

Ruben B. McCullers
Environmental Scientist
RCRA Compliance Section

Enclosure

cc: Ed Sadler, MDNR

bcc: Nate Meyer, PRC
Bob Richards, CNSL

WSTM/RCRA/RCOM:MCCULLERS:as:7662:10/14/92:F:\PUBLIC\SAMPLING.LT2

RCOM	CNSL	RCOM
MCCULLERS	RICHARDS	DOYLE
RBM 10/14/92	10/14/92	10/14/92

COMMENTS
ON THE CLOSURE PLAN
FOR THE WASTE PAINT FILTERS
AND OVERSPRAY PAPER STORAGE UNIT
AND THE BRULE INCINERATOR UNIT
April 7, 1992
Knapheide Manufacturing Company
West Quincy, Missouri

1.0 INTRODUCTION

I reviewed Section 4.0 of the closure plan to determine if the proposed sampling activities would indicate if releases had occurred from the storage unit or incinerator unit. In reading Sections 1.0, 2.0, and 3.0 to gain an understanding of previous closure activities, I noted sections and paragraphs of the plan that did not appear to fully address some of the closure requirements of 40 Code of Federal Regulations Subpart G; however, these areas will be addressed by MDNR when they review the complete closure plan. The comments concerning sampling activities are organized into general and specific comments. The general comments outline the major technical deficiencies in the proposed sampling activities and some of the closure requirements that need additional consideration. The specific comments provide some direction for Knapheide regarding deficiencies in specific sections and paragraphs.

2.0 GENERAL COMMENTS

I found that the proposed sampling activities found in Section 4.0 of the closure plan were not adequate to determine if releases from the storage unit or incinerator unit had occurred. Overall, the proposed sampling activities were not presented in great enough detail to assess its feasibility and completeness. The following paragraphs provide general comments on Section 4.0.

1. Section 4.1. This section satisfactorily discusses the aerial extent of the subject closure area. However, figure 3, referenced in this section, must be revised to provide the exact dimensions of area being closed.

2. Section 4.2. The discussion of sampling activities conducted in March 1992 states that additional sampling for constituents other than hexavalent chromium may be required if specific waste residues from the absorbent material waste stream are detected during waste residue identification activities. Because of the nature of the paint waste, samples must be collected from each unit for analysis of volatile organic compounds, semivolatile organic compounds and total metals. Knapheide also needs to revise the plan to further consider that ash from incineration activities was held in the storage unit and incinerator unit.

The ash may contain waste residues at much higher concentrations than in the waste paint filters and overspray paper (absorbent waste stream). It is possible that waste residues may not be detected in the waste paint filters and overspray paper but may be present in the ash. This would lead to the omission of closure performance standards for those constituents not detected in the waste paint filters and overspray paper but present in the ash.

3. Section 4.3. The discussion of how the incinerator will be removed must be revised to include additional sampling information. The proposed sampling is insufficient to determine if releases have occurred. First, Knapheide must discuss or reference whether the incinerator treated material other than waste paint filters and overspray paper. It would also be helpful to discuss when the incinerator was constructed, how it was operated, and its physical dimensions. Second, Knapheide must document the integrity of the concrete pad. Knapheide must document whether the concrete contains any cracks. Third, Knapheide must address and present decontamination procedures for the incinerator and concrete pad.

4. Section 4.4. The section must address constituents other than hexavalent chromium (see comments on section 4.2). Knapheide must also provide a full reference for the hexavalent chromium closure performance standard.

5. Section 4.5.1. This section presents the proposed waste residue identification activities and discusses how they will be used to establish performance standards. Knapheide must provide greater detail on how the performance standards will be calculated. Currently, the section does not contain enough detail for me to make a determination of its adequacy.

6. Section 4.5.2. This section discusses the proposed sampling activities. The proposed sampling activities are not sufficient to indicate if a release has occurred. See specific comment No. 13 for information that must be included in this section.

7. Section 4.5.3. This section discusses the steps that will be taken if verification samples reveal soil contamination above the closure performance standards. If the closure performance standards are exceeded, Knapheide will need to explain the "secondary verification sampling scheme" in greater detail or provide a full reference of its procedures.

8. Section 4.7. This section briefly discusses the final disposal of the incinerator. This section must contain additional information on how the incinerator residues (ash) will be sampled and what methods will be used for analysis. Also see general comment No. 3.

SPECIFIC COMMENTS

1. Section 3.0, Page 5, Paragraph 5. The first sentence indicates that only absorbent material was held within the storage unit. The last sentence in this paragraph indicates that ash generated from incineration activities was also held within the storage unit. Knapheide must correct the first sentence to state that both absorbent material and ash generated from incineration were held within the storage area.

2. Section 3.3, Page 7 and 8. This section characterizes the wastes held within the storage area. This section characterizes only the absorbent material. This section must also characterize the ash from incineration.

3. Section 3.3, Pages 7 and 8. This section only considers the chromium content of the absorbent materials. This section must state whether other metals such as lead are found in the absorbent materials. This section must also state whether volatile organic compounds (VOC) or semivolatile organic compounds are found in the absorbent materials. Knapheide should include in the closure plan the analysis dated March 12, 1991, of the waste paint filters and overspray paper and any other waste analyses.

4. Section 3.6, Page 10. This section estimates the maximum inventory of waste materials held within the storage area. This section must distinguish between the maximum amount of absorbent materials and the maximum amount of ash held in the storage area.

5. Section 3.7, Page 10 and 11. The first paragraph of this section states that the last day of use for the incinerator was September 25, 1989, and that the last day of use for the storage area was May 24, 1991. The second paragraph of this section states that the last day of use for the subject closure area (both the incinerator and the storage area) was April 7, 1992. Knapheide must explain the difference between these dates.

6. Section 3.7, Page 10, Paragraph 2. The first sentence of this paragraph states that the closure area is approximately 10 percent larger than the exact definition of the waste management unit to accommodate for ancillary waste management operations. The paragraph must state the definition of a waste management unit. This area must include at a minimum, the area that was actually used for the management of wastes, rather than to simply increase the area defined as a "waste management unit" by 10 percent.

7. Section 4.2, Page 12, Paragraph 1. This paragraph (or a separate paragraph) must document when the crushed gravel, dust, and brick pieces were placed on the storage area. If the gravel, dust, and brick were placed in this area recently, the soil

samples collected may not be representative of the surface upon which the waste containers were placed. The use of the term "dust" also infers a material other than soil. The term "dust" must be clarified.

8. Section 4.2, Page 12, Paragraph 3. This paragraph states that hexavalent chrome was not detected in any of the soil samples. This paragraph must state if any other constituents were detected. This paragraph must also state what analytical methods were used for the analysis.

9. Section 4.2, Page 12, Paragraph 4. This paragraph states that the closure area was preliminarily assessed as achieving clean closure conditions. This statement appears to be based on an understanding that hexavalent chromium was not detected in the soil samples. The absorbent materials and ash from incineration, however, may contain target constituents other than hexavalent chromium. The analysis of soil samples for other constituents must also be addressed and presented.

10. Section 4.3, Page 13. This section describes the removal of the incinerator. This section needs to explain the decontamination procedures, if any, that are planned for the incinerator and concrete pad. In order to meet 40 CFR 265.351, Knapheide must collect a wipe sample from the incinerator and a water sample of the final rinsate from decontaminating the concrete pad.

11. Section 4.5.1, Page 14, Paragraph 3. This paragraph explains that samples of paint filters and overspray paper will be collected, representatively composited, and analyzed for priority pollutants by EPA methods 8080, 8240, 8270, total cyanide, and RCRA-8 metals. The paragraph should specify whether "RCRA-8 metals" denotes Toxicity Characteristic Leaching Procedure (TCLP) metals or total metals. It is assumed to denote TCLP metals. Knapheide may also want to consider analyzing the paint filters and overspray paper for TCLP VOCs and semivolatiles if the total analysis of a specific compound reveals a concentration greater than 20 times its TCLP regulatory threshold. This is a guideline used by the EPA Region 7 Laboratory to determine if a waste is a RCRA characteristic hazardous waste.

12. Section 4.5.1, Page 15, Paragraph 1. This paragraph explains the derivation of closure performance standards. First, the negative sign on the exponents for the risk factors have been omitted. These must be corrected. Second, it is unclear how the risks from individual contaminants will be calculated. A thorough explanation is needed.

13. Section 4.5.2, Page 15. This section explains how the verification sampling of the closure area will be conducted.

This section does not contain sufficient detail to assess its technical completeness. Details that need to be outlined include: sampling methods, the number and types of soil samples (grab or composite), soil sample depths, specific areas to be sampled, number of duplicates, and analytical methods and method detection limits that will be used.

Knapheide, at a minimum, must do the following at the storage unit: (1) collect at least one soil sample from each pathway of surface water runoff from the unit for analysis of total metals, (2) collect at least one background soil sample for analysis of total metals to assess the natural levels of metals in the native soils, (3) collect at least three additional soil samples in the storage unit, with each of the samples analyzed for total metals, and at least one of the soil samples collected up to a depth of two feet, (4) analyze at least one of the soil samples collected in the storage unit for the following: volatile organic compounds, base neutral acids, and total metals, (5) collect at least one soil sample from the oily layers in the soil as described in Appendix B, Field Sampling Report, and analyze for volatile organic compounds, base neutral acids, and total petroleum hydrocarbons.

Knapheide, at a minimum, must do the following at the incinerator unit: (1) collect at least one wipe sample from the ash collection area of the unit for analysis, (2) collect at least one soil sample from the material transport pathway for analysis of total metals, volatile organic compounds, and base neutral acids, (3) collect at least one soil sample from each pathway of surface water runoff from the unit for analysis of total metals, and (4) collect at least one soil sample from beneath each pathway to the soil from cracks in the concrete for analysis of total metals.

14. Section 4.5.3, Page 16, Paragraph 1. The second sentence refers to a lifetime risk of adverse health of 1x10E6. The negative sign on the exponent has been omitted. This must be corrected.